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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,450

04/20/2006

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Q94064

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23373 7590 06/23/2009  
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EXAMINER

BUIE, NICOLE M

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

06/23/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,450	<b>Applicant(s)</b> TSUDA ET AL.	
	<b>Examiner</b> NICOLE M. BUIE	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-13 is/are pending in the application.
- 4a) Of the above claim(s) 9-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20090406</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

The amendment filed 04/06/2009 has been entered. Claims 1 and 3-12 remain pending. Claim 13 has been added. Claims 9-12 were previously withdrawn from consideration.

### ***Response to Arguments***

Applicant's arguments filed 04/06/2009 have been fully considered but they are not persuasive. The following comments apply:

A) The Examiner inadvertently did not add an extra zero to 1000, which the correct amount should be 10000 ppm in the first full paragraph on page 3 of the previous Office Action.

B) The correct English equivalent of Araki (WO 95-08598 A) is US 5,925,705.

C) Applicants' showing of unexpected results is not persuasive. Since Araki et al. (JP '782) teaches a polymerization of tetrafluoroethylene in the presence of the claimed fluorovinyl group-containing emulsifier, the rate of the polymerization would inherently be present in the process of Araki. Furthermore, the Examples in Table 1 do not demonstrably show the criticality for the amount of fluorinated surfactant. In each of the Examples the amount of fluorine-containing surfactant is below the claimed range. To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. In re Hill, 284 F.2d 955, 128 USPQ 197 (CCPA 1960). See MPEP 716.02(d).

D) Applicants' argument that the amount of fluorine-containing surfactant of WO '598 can be obtained by adding a nonionic non-fluorine-containing surfactant (P8) is not persuasive.

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Although WO'598 teaches that the fluorine-containing surfactant can be reduced in the presence of a nonionic non-fluorine-containing surfactant, the combination of the prior art still meets the claimed limitations.

E) Applicants' argument one of ordinary skill in the art would not be led to the tetrafluoroethylene dispersion having such a low surfactant content of not higher than 1000 ppm (P8) is not persuasive. Since Araki et al. (WO '598) teaches that the amount of surfactant is less than 1 wt%, the claimed range is met. Furthermore, Araki et al. (WO '598) teaches the lower limit may be 0.01%, which corresponds to 100 ppm (See US 5,925,705, C3/L36-45). It would have been obvious to one of ordinary skill in the art at the time of invention to have selected the overlapping portion of the ranges disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). See MPEP 2144.05.

### ***Information Disclosure Statement***

The information disclosure statement filed 04/06/2009 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. A copy of JP 61-33848 was not provided. The said foreign patent document has been considered and added to the attached 892.

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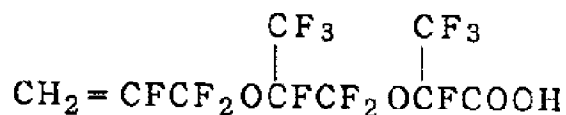
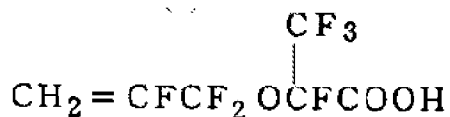
***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

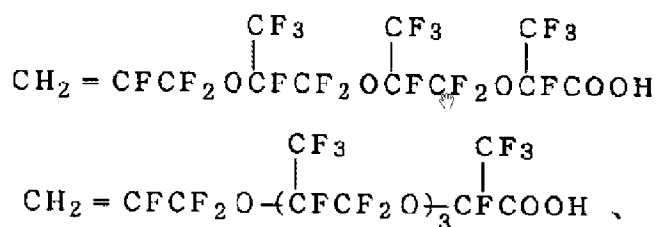
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**Claims 1, 3-8, and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Araki et al. (JP 95033782 A1, see machine translation for citation) in view of Araki et al. (WO 95-08598A, see English equivalent (US 5,925,705) for citation).

**Regarding claims 1, 3-6, and 13**, Araki et al. (JP '782) discloses a tetrafluoroethylene polymer aqueous dispersion containing a fluorovinyl group (Claim 1, P25-26, P33-34) for example the formulas as shown below:



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The tetrafluoroethylene polymer has a tetrafluoroethylene unit therefore the tetrafluoroethylene polymer is a perfluoro-based polymer.

However, Araki et al. (JP'782) does not disclose said tetrafluoroethylene polymer aqueous dispersion has a fluorine-containing surfactant content of not higher than 1000 ppm by mass. Araki et al. (WO '598) teaches the amount of fluorine-containing surfactant is not more than 1.0% by weight, which corresponds to not more than about 10,000 ppm, a fluoropolymer (C3/L34-45). Araki et al. (WO '598) teaches that the fluorine-containing surfactant is usually 0.01% by weight, which corresponds to 100 ppm (C3/L36-45). Araki et al. (JP '782) and Araki et al. (WO '598) are analogous art concerned with the same field of endeavor, namely aqueous dispersions of fluoropolymers. It would have been obvious to one of ordinary skill in the art at the time of invention the use the amount of fluorine-containing surfactant of Araki et al. (WO '598) in the dispersion of Araki et al. (JP '782), and the motivation to do so would have been as Araki et al. (WO '598) suggest to prevent precipitation of the surfactant in the film formed from the aqueous dispersion and prevent whitening (C3/L34-45). Araki et al. (JP '782) discloses the tetrafluoroethylene polymer aqueous dispersion wherein the tetrafluoroethylene polymer has a tetrafluoroethylene unit content of 20-99.99 mol % (as compared to exceeding 40 mole percent as required by said claim) (Claim 1).

**Regarding claim 7**, Araki et al. (JP '782) does not disclose the tetrafluoroethylene polymer aqueous dispersion which has a solid matter concentration of 5 to 70% by mass.

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Additionally, Araki et al. (WO '598) teaches a solid content from 30 to 50% by weight (C3/L46-53). It would have been obvious to one of ordinary skill in the art at the time of invention to use the amount of solid matter of Araki et al. (WO '598) in the dispersion of Araki et al. (JP '782), and the motivation to do so would have been as Araki et al. (WO '598) to be able to adjust viscosity and maintain leveling property, and maintain stability of dispersion (C3/L46-53).

**Regarding claim 8**, Araki et al. (JP '782) does not disclose the tetrafluoroethylene polymer aqueous dispersion wherein the particle comprising the tetrafluoroethylene polymer has an average primary particle diameter of 50 to 500 nm. Araki et al. (WO '598) teaches the particle size is not more than 200 nm (C3/L14-22). It would have been obvious to one of ordinary skill in the art at the time of invention to use the particle size of Araki et al. (WO '598) in the dispersion of Araki et al. (JP '782), and the motivation to do so would have been to improve the stability of the dispersion and ease of forming gloss (C3/L14-22).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/  
Supervisory Patent Examiner, Art Unit 1796

/N. M. B./  
Examiner, Art Unit 1796  
6/10/2009